

IN THE CLAIMS:

1-7. (Canceled)

8. (New) A method of assembling an illuminant for a discharge lamp, comprising:
supporting and positioning a cylindrical housing comprising a first open end and a second open end;

inserting a first discharge electrode into the first open end;

inserting a second discharge electrode into the second open end;

adjusting a position of the first discharge electrode within the cylindrical housing relative to the second discharge electrode such that first discharge electrode is opposed to the second discharge electrode and a predetermined gap is formed between the first discharge electrode and the second discharge electrode; and

heating the cylindrical housing to a sufficient temperature to fix each of the first discharge electrode and the second electrode to the cylindrical housing such that the predetermined gap is maintained.

9. (New) The method of Claim 8, further comprising filling a discharge chamber formed by the predetermined gap with discharge gas.

10. (New) The method of Claim 9, wherein the filling of the discharge chamber comprises performing the inserting and the adjusting of the first discharge electrode and the second discharge electrode within the cylindrical housing in an atmosphere of the discharge gas.

11. (New) The method of Claim 8, wherein the cylindrical housing is supported and positioned in a vertical position.

12. (New) The method of Claim 11, wherein a first discharge electrode comprises a concave section, and wherein the method further comprises disposing an additive material on the concave section, and evaporating the additive material during the heating of the cylindrical housing.

13. (New) The method of Claim 8, wherein the cylindrical housing is constructed of a transparent material and has equal inner radii at both the first open end and the second open end, and wherein each of the first discharge electrode and the second discharge electrode have an outer radius approximately equal to or slightly smaller than the inner radius of the cylindrical housing.

14. (New) A method of assembling an illuminant for a discharge lamp, comprising:
supporting and positioning a cylindrical housing comprising a first open end and a second open end;

inserting a first discharge electrode pre-affixed to a first sealing spacer into the first open end;

inserting a second discharge electrode pre-affixed to a second sealing spacer into the second open end;

adjusting a position of the first discharge electrode within the cylindrical housing relative to the second discharge electrode such that first discharge electrode is opposed to the second discharge electrode and a predetermined gap is formed between the first discharge electrode and the second discharge electrode; and

heating the cylindrical housing to a sufficient temperature to fix each of the first sealing spacer and the second sealing spacer to the cylindrical housing such that the predetermined gap is maintained.

15. (New) The method of Claim 14, further comprising filling a discharge chamber formed by the predetermined gap with discharge gas.

16. (New) The method of Claim 15, wherein the filling of the discharge chamber comprises performing the inserting and the adjusting of the first discharge electrode and the second discharge electrode within the cylindrical housing in an atmosphere of the discharge gas.

17. (New) The method of Claim 14, wherein the cylindrical housing is supported and positioned in a vertical position.

18. (New) The method of Claim 17, wherein a first discharge electrode comprises a concave section, and wherein the method further comprises disposing an additive material on the concave section, and evaporating the additive material during the heating of the cylindrical housing.

19. (New) The method of Claim 14, wherein the cylindrical housing is constructed of a transparent material and has equal inner radii at both the first open end and the second open end, and wherein each of the first sealing spacer and the second sealing spacer have an outer radius approximately equal to or slightly smaller than the inner radius of the cylindrical housing.

20. (New) A method of manufacturing an illuminant for a discharge lamp, comprising:

supporting and positioning a cylindrical transparent housing in a vertical position, wherein the cylindrical transparent housing comprises a first open end and a second open end, and wherein the cylindrical transparent housing has equal inner radii at both the first open end and the second open end;

inserting a first discharge electrode pre-affixed to a first sealing spacer into the first open end, wherein the first discharge electrode has a concave section;

inserting a second discharge electrode pre-affixed to a second sealing spacer into the second open end, wherein each of the first sealing spacer and the second sealing spacer have an outer radius approximately equal to or slightly smaller than the inner radius of the cylindrical transparent housing;

disposing an additive material on the concave section;

adjusting a position of the first discharge electrode within the cylindrical housing relative to the second discharge electrode such that first discharge electrode is opposed to the second discharge electrode and a predetermined gap is formed between the first discharge electrode and the second discharge electrode; and

heating the cylindrical housing to a sufficient temperature to fix each of the first sealing spacer and the second sealing spacer to the cylindrical housing such that the predetermined gap is maintained, and such that the additive material is evaporated.